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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/584,412 | 04/06/2007 | **Shuhei Okude** | 4252-0120PUS1 | 9068 |

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| EXAMINER | |
|---|---|
| ROBINSON, ELIZABETH A | |
| **ART UNIT** | **PAPER NUMBER** |
| 1794 | |

| NOTIFICATION DATE | DELIVERY MODE |
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| 10/23/2008 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/584,412 | OKUDE ET AL. | |
| | Examiner | Art Unit | |
| | Elizabeth Robinson | 1794 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *11 July 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1,3 and 6-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3 and 6-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 3 and 6-13 are currently pending.

### *Claim Rejections - 35 USC § 102*

Claims 1, 3, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Shoshi et al. (US 2003/0104188).

Regarding claims 1 and 3, Shoshi (Paragraphs 8-9) teaches a film for optical applications comprising a substrate (base) film and a low refractivity (low refractive index) layer. The film exhibits excellent scratch resistance (Paragraph 8) and thus, is a protective film. While the film is not explicitly stated as protecting a polarizing plate, this is an intended use of the protective film. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. The low refractive index layer has a refractive index in the range of 1.30 to 1.45 (Paragraph 47). This range overlaps the range of the instant claims. The low refractive index layer comprises porous silica and a polysiloxane based polymer (Paragraph 50). The size of the porous silica particles is preferably 30 to 80nm. Thus, the particles are microparticles. Shoshi does not teach that any portion of the shell is missing and thus, the cavity is completely enclosed within the shell. The polysiloxane based polymer can

be the same as the material for the hardcoat layer of the film (Paragraph 50). The polysiloxane based polymer is taught in Paragraphs 25-31 and can have any of the forms specified in the instant claims with M as Si. Shoshi (Paragraph 11) teaches that the film comprises a hard coat layer between the base film and the low refractive index layer. Shoshi (Paragraph 23) further teaches that the hard coat layer is cured by heat or ionizing radiation.

Regarding claim 6, Shoshi (Paragraph 45) teaches that the refractive index of the hard coat layer is 1.50 to 1.75 and preferably 1.60 to 1.70. These ranges overlap or are fully encompassed by the range of the instant claim.

Regarding claim 7, Shoshi (Paragraphs 21) teaches that the hard coat layer can comprise fine particles of tin oxide doped with antimony or zinc antimonite with an average particle diameter of 1 to 60 nm. These materials are conductive microparticles.

### *Claim Rejections - 35 USC § 103*

Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoshi et al., in view of Murakami et al. (US 5,681,900). As stated above, Shoshi teaches a film which meets the limitations of claim 1. Shoshi (Paragraph 18) further teaches that the substrate film can be any film conventionally used for substrates for optical applications. For a protective film for a liquid crystal display, the film should be transparent and colorless (Paragraph 19). Shoshi does not explicitly state that the substrate is an alicyclic structure-containing polymer resin. Murakami (Column 9, lines 7-28) teaches that for uses such as liquid crystal device substrates and polarizing films,

a norbornene resin composition has excellent heat resistance and transparency, low hygroscopicity and is mechanically tough. It would be obvious to one of ordinary skill in the art to use the norbornene resin composition of Murakami, to form the substrate of Shoshi, in order to provide a transparent substrate that is tough, does not absorb water and has high heat resistance.

Claims 9, 10, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoshi et al., in view of Nakamura et al. (US 2001/0035929). As stated above, Shoshi teaches a film which meets the limitations of claim 1. Shoshi (Paragraph 8) further teaches that the film can be used as an antireflection film on the surface of a liquid crystal display (LCD). Shoshi does not explicitly teach that the film is on the observation side of a polarizing plate. Nakamura (Paragraph 137) teaches that when an antireflection film is attached to an LCD, it is preferable to use it as one of two protective films for a polarizer plate, which is then adhered to the screen. It would be obvious to one of ordinary skill in the art to use the antireflection film of Shoshi in a conventional manner as taught by Nakamura.

Claims 1, 3 and 6-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishida et al. (JP 2001-233611), in view of Nakamura et al. (US 2001/0035929). A formal English translation of JP 2001-233611 is provided with this Office Action.

Regarding claims 1, 3, 9 and 10, Nishida (Paragraph 26) teaches a structure that can comprise a base material, a hard coating film and a coating film as described in the

document, which can be used on the surface of a liquid crystal display (LCD) panel or other type of base material. The coating film is a low refractive index layer with a refractive index of 1.20 to 1.42 and can comprise hollow silica particles with a shell that seals the cavity (Paragraph 30). The matrix of the low refractive index layer (Paragraph 27) can be a hydrolyte of an alkoxy silane. Nishida (Paragraph 31) teaches that the intermediate layer should have a refractive index of 1.60 or above in order to form an antireflective film, but does not teach the material of the intermediate layer. Nishida does not explicitly teach that the layered film composition is on a polarizing plate. Nakamura (Paragraph 137) teaches that when an antireflection film is attached to an LCD, it is preferable to use it as one of two protective films for a polarizer plate, which is then adhered to the screen. It would be obvious to one of ordinary skill in the art to use the antireflection film of Nishida in a conventional manner as taught by Nakamura. Nakamura (Paragraph 66) teaches that the intermediate layer between the base layer and the low refractive index layer can be an anti-glare/hard coat layer. The materials of the hard coat layer are cured by ionizing radiation or heat (Paragraphs 68-75). It would be obvious to one of ordinary skill in the art to use the materials of Nakamura, for the hard coat layer of Nishida, in order to have a specific material that has been shown to be effective for a hard coat layer of an antireflection film.

Regarding claim 6, Nakamura (Paragraph 91) teaches that the hard coating layer has a refractive index of 1.57 to 2.00.

Regarding claims 7, 12 and 13, Nakamura (Paragraphs 87-88) teaches that the hardcoat layer can comprise metal oxide fine particle, for example indium tin oxide (ITO). ITO is electrically conductive.

Regarding claims 8 and 11, Nishida (Paragraph 26) teaches that the base material can be a variety of plastic materials, but does not explicitly teach an alicyclic resin. Nakamura (Paragraph 56) teaches that the transparent support for an antireflection film can be formed from a norbornene-series polyolefin resin. It would be obvious to one of ordinary skill in the art to use the resin of Nakamura, as the base layer resin of Nishida, in order to have a specific material that has been shown to be effective for the base layer of an antireflection film.

### *Response to Arguments*

Applicant's arguments filed July 11, 2008 have been fully considered but they are not persuasive.

Applicant argues that since the shell of Shoshi et al. is porous it does not completely enclose the cavity. However, Shoshi does not teach that any portion of the shell is missing and thus, the cavity is completely enclosed within the shell under the broad definition of completely enclosed. The claim language does not state that the pores of the shell are completely closed.

The declaration under 37 CFR 1.132 filed July 31, 2008 is insufficient to overcome the rejection of claims 1-10 based upon the 35 U.S.C. 102(b) and 103 (a) over Shoshi et al., Murakami et al. and Nakamura et al. as set forth in the last Office

action because: the features upon which applicant relies (i.e., scratch resistance) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The rejections over Nishida et al. were added to address a narrower interpretation of the newly added, completely enclosed, limitation.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Due to amendments to the claims, the rejection of claim 7 under 35 U.S.C. 112, second paragraph from the February 11, 2008 Office Action is withdrawn.

Due to amendments to the claims, the nonstatutory obviousness-type double patenting rejections from the February 11, 2008 Office Action are withdrawn.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Robinson whose telephone number is (571)272-7129. The examiner can normally be reached on Monday- Friday 8 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ear
/E. R./
Examiner, Art Unit 1794

/Carol Chaney/
Supervisory Patent Examiner, Art Unit 1794